

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

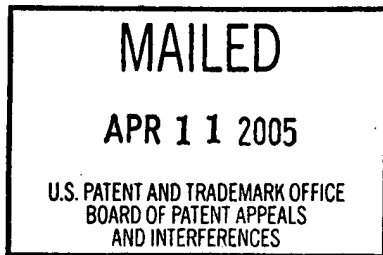
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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JAMES E. FLOWERS

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Appeal No. 2005-0282  
Application No. 09/755,991

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ON BRIEF

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Before HAIRSTON, KRASS, and DIXON, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-7 and 15-21.

The invention pertains to a Surface Acoustic Wave (SAW) circuit module. In particular, a module having multi-band SAW circuits is provided. First and second SAW circuits are located within a shell of a module, wherein each of the SAW circuits is respectively couplable to first and second terminal sets. Moreover, the first and second SAW circuits filter respective first and second signals in respective first and second bands of communication frequencies.

Representative independent claim 1 is reproduced as follows:

1. A module, comprising:

a hermetically-sealable shell having first and second terminal sets;

a first surface acoustic wave (SAW) circuit, located within said shell and couplable to said first terminal set, that filters a first signal in a first band of communications frequencies; and

a second SAW circuit, located within said shell and couplable to said second terminal set, that filters a second signal in a second band of communications frequencies.

The examiner relies on the following references:

Ikata et al. (Ikata)	5,786,738	Jul. 28, 1998
Filipov et al. (Filipov)	5,923,459	Jul. 13, 1999
Takado	5,939,817	Aug. 17, 1999

Claims 1-7, and 15-21 stand rejected under 35 U.S.C. §103. As evidence of obviousness, the examiner offers Takado, Ikata and Filipov.

Reference is made to the brief and answer for the respective positions of appellants and the examiner.

### OPINION

In rejecting claims under 35 U.S.C. §103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). To reach a conclusion of obviousness

under §103, the examiner must produce a factual basis supported by a teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration. Our reviewing court requires this evidence in order to establish a prima facie case. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). The examiner may satisfy his/her burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead the individual to combine the relevant teachings of the references. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

In applying the references to the instant claims, the examiner describes the teachings of the various references. Takado is said to disclose a module 10, comprising a hermetically-sealable shell 20 having first and second terminal sets 35a, and a lid 21, coupled to the shell and forming an enclosure of a SAW circuit.

Ikata is said to teach a duplexer having a first SAW circuit 33a, located within a shell and couplable to a first terminal set; and a second SAW circuit 33b located within the shell and couplable to a second terminal set, for the purpose of providing a multi-level ceramic package with filter chips having different central frequencies.

Filipov is said to teach the construction of an acousto-optic time-integrating correlator 10 having a SAW device 18, with two transducers 19 and 20, that filters a

first signal 21 in a first band of communication frequencies and a second signal 22 in a second band of communications frequencies.

The examiner then concludes that it would have been obvious “to use the transducers disclosed by FILIPOV...with the duplexer arrangement disclosed by IKATA...on the module disclosed by TAKADO for the purpose of providing a multi-layer ceramic package with filter chips filtering two different signals, and having different central frequencies” (answer-page 4).

In our view, the examiner has failed to establish a prima facie case of obviousness with regard to the subject matter of independent claim 1. While the examiner concludes that it would have been obvious “to use the transducers disclosed by FILIPOV...with the duplexer arrangement disclosed by IKATA...on the module disclosed by TAKADO for the purpose of providing a multi-layer ceramic package with filter chips filtering two different signals, and having different central frequencies,” the examiner provides no supporting basis for this conclusion. The examiner provides no explanation as to what, in the references or in the knowledge of skilled artisans, would have led the artisan to make the combination. The examiner says it would have been for the “purpose of providing a multi-layer ceramic package with filter chips filtering two different signals, and having different central frequencies,” but what would have

possessed the artisan to seek a multi-layer ceramic package with filter chips filtering two different signals, and having different central frequencies? What is it, in the teachings of any of the references, or their combination, that would have indicated to the artisan that such a result was desirable? The examiner does not expressly say.

Moreover, even if such a combination would have been made and the artisan had some motivation for doing so, the examiner's rejection would still fail. Independent claim 1, as well as independent claim 15, recites first and second SAW circuits. The first SAW circuit filters a first signal in a first band of communication frequencies, while the second SAW circuit filters a second signal in a second band of communication frequencies. The examiner relies on Filipov for the teaching of this limitation, effectively admitting that neither Takado nor Ikata disclose or suggest this specific claim limitation. Therefore, if Filipov does not contain a disclosure or suggestion of such filtering of first and second signals in first and second bands of communication frequencies, respectively, the rejection must fail from the outset.

We have reviewed the applied references, and we have paid special attention to Filipov for a teaching of filtering of first and second signals in first and second bands of communication frequencies, respectively, and we can find no such teaching or suggestion. The examiner contends that Filipov's SAW device 18 contains transducers

19 and 20 which interact with signals 16 and 17 and that “[a]t the time the interaction is done, the input signals of transducers 19 and 20 are effectively two different signals having two different frequencies and inherently different range of operational or communication frequencies, also known as bandwidths” (answer-page 7). However, there is nothing within the four corners of Filipov, and the examiner has pointed to nothing, that suggests that the signals 21 and 22 are “effectively two different signals having two different frequencies and inherently different range of operational or communication frequencies,” as contended by the examiner. There is nothing, in Filipov, to suggest that any two signals, whether they be signals 16, 17, or signals 21, 22, are of different band frequencies filtered by different SAW circuits.

We agree with appellants, at page 11 of the brief, that Filipov’s SAW device 18 does not filter first and second signals in respective first and second bands of communication frequencies and that transducers 19 and 20 do not filter any signals, but, rather, merely convert signals 21 and 22 to surface waves on the SAW device 18. Signals 21 and 22 interact with the two beams 16 and 17 to shift them up in frequency, as indicated at column 6, lines 46-57, of Filipov.

Since the examiner has not convincingly set forth a case as to why the proposed combination of references would have resulted in a first SAW circuit that filters a first

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signal in a first band of communication frequencies and a second SAW circuit that filters a second signal in a second band of communication frequencies, we will not sustain the rejection of independent claims 1 and 15, or of claims 2-7, and 16-21, dependent thereon, under 35 U.S.C. §103.


The examiner's decision is reversed.

REVERSED

  
KENNETH W. HAIRSTON  
Administrative Patent Judge )

  
ERROL A. KRASS  
Administrative Patent Judge

) BOARD OF PATENT  
) APPEALS  
) AND  
) INTERFERENCES

  
JOSEPH L. DIXON  
Administrative Patent Judge

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